



The Role of Fisheries in Economic Growth and Poverty Alleviation

TOWARDS A WEALTH-BASED APPROACH FOR FISHERIES MANAGEMENT

OVERVIEW

Fish resources represent natural capital and are a potential source of sustainable wealth for many coastal, island and inland developing countries. This wealth provides the opportunity for such resources to make an ongoing contribution to economic growth and poverty alleviation. The problem is to determine the policies which optimise this contribution.

The question of how to manage wealth is fundamental to fisheries exploitation and management, and policy-makers cannot avoid it, but in general it has not been considered explicitly by policy-makers. A recent DFID study ⁽¹⁾ examined this situation from both theoretical and empirical perspectives, undertaking eight case-studies worldwide (Bangladesh, Canada, India, Malawi, Mauritania, Morocco, the Pacific Islands—Forum Fisheries Agency, and Thailand). The results indicated that many fisheries management systems are under-performing and that fisheries wealth is not fully utilised as a source of economic growth and poverty alleviation. To improve upon this situation, there is an urgent need to make fisheries management more effective. Rather than trying to improve upon the existing conventional approaches to fisheries management, there is a strong case for radical change and a new focus on a wealth-based approach to fisheries management. In other words, *the challenge for those involved in promoting more effective fisheries management is not to do the same things better, but to do them differently* ⁽²⁾. The key issues involved are outlined in this key sheet.

KEY ISSUES

1. Fisheries can contribute to economic growth and poverty reduction – the wider context

There has been renewed recognition of the role of economic growth in development, with greater emphasis being placed on the distribution of benefits ('pro-poor growth')⁽³⁾. The pro-poor growth concept is of particular interest to DFID and other donors because it aligns economic growth with changes in the well-being of the poor.

Government macroeconomic policy is an important determinant of economic growth in areas such as free-trade, stable prices and private enterprise. But how can a single sector such as fisheries best contribute to their achievement? **In simple terms, by maximising its contribution to economic growth.**

2. Fisheries can contribute directly to pro-poor goals through fishing activity (employment and livelihoods), but this route can also lead to negative impacts on the fisheries and the economy

Fish resource wealth can also contribute to pro-poor goals more directly by providing employment (as fishers and other related trades) and a source of livelihoods. In many countries, this has been the

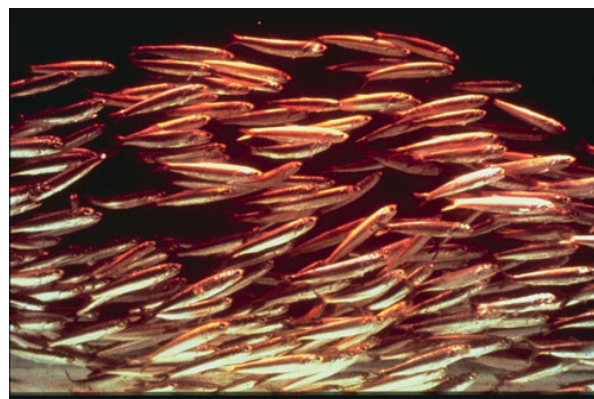


Photo.1. Anchovy form the basis of industrial and artisanal fisheries. Credit: US NOAA



Photo. 2. Fish market in Madras, India. (G Bizzarri, 1996). Courtesy of FAO Media Archive.

policy approach taken by government for a long time. The typical features of this 'conventional approach' to fisheries exploitation and management are given in Box 1.

Box 1. Features of the 'conventional approach' to fisheries management (and impacts)

- *emphasis on the physical weight of fish caught* (a production oriented policy can contribute to overexploitation – exceeding natural limits in the long-run);
 - *overexploitation is typically understood only in its biological dimension* (ignoring the economics dimension can lead to over-investment (overcapacity) in the fishery);
 - *fish resource benefits are perceived in terms of the fishing activity including employment and also livelihoods benefits for the poor* (high social dependence can lead to management being paralysed; poor fishers cannot be prevented from fishing);
 - *emphasis on technology* (modernisation of fishing technology often conflicts with other policy such as employment creation);
 - *fishers have poorly defined use rights* (fishers are vulnerable to impacts of other sectors e.g. tourism);
 - *the key issue of the **resource rent** is hardly ever addressed* (policy decision is taken, by default, to dissipate the resource rent; generating some activity-related benefits, but the potential long-term economic growth contribution of the resources is foregone);
 - *fisheries management is beset with perverse effects that many policy-makers find difficult to understand* (for example, as value-added of fish increases so overexploitation may also increase in the absence of effective fisheries management);
-



Photo 3: Fishermen pulling in nets, Malawi (A Conti, 1994). Courtesy of FAO Media Archive.

These features of the 'conventional approach' to fisheries management policy have two main consequences:

First, **success indicators** are implemented that are appropriate to this approach including levels of production, employment, exports, food security, GDP contribution (resource rent is often ignored), fiscal receipts and value added. The common feature of these success indicators is that they involve or attempt to involve increasing physical production levels—this has led to the widespread state of overexploitation (economically and biologically) of the world's fisheries.



Photo 4: Large-scale fishing operations are to be found throughout tropical fisheries. Credit: US NOAA.

Second, by and large to benefit from fish resources and their wealth, it is necessary to be a fisher (to be engaged in fishing or some related sectoral activity). Coupled with a general failure to restrict access, **excessive levels of capacity are generated** by those who want to participate in the sector (existing and new entrants).

Overall then, the typical 'conventional approach' to fisheries management (Box 1) provides **incentives** both for managers and fishers to over-exploit fish resources, leading to fisheries globally characterised by failure⁽⁴⁾.

3. A 'wealth-based approach' to fisheries exploitation and management puts resource rent at the heart of the process, and represents an alternative to the 'conventional approach'

The inherent wealth in fish resources is represented by the resource rent – a crucial concept for the exploitation and management of capture fisheries. In the absence of effective management, the resource rent is dissipated and serves to drive the

overexploitation of the fishery. On the other hand, with an effective management system, the resource rent can either be capitalised into the value of a use right, or can be extracted by the management agency (or some combination of the two).

With resource rent at the centre of the management process, decisions are taken about how to generate the wealth, how to share it and how to use it. The success indicators and the management approach are different to those of the conventional approach.

Developing a wealth-based approach to management requires the implementation of a process (within the broader context of a fisheries management planning approach), including the following features:

- *definition* of a set of fishery management units (FMUs);
- *calculating* the wealth potential (on the basis of the FMUs, calculate the resource rents under different management scenarios);
- *establish* the precise management arrangements (depending on the fishery and its management authority (e.g. Morocco has implemented individual catch quotas for its cephalopod fisheries);
- *make arrangements* to share the resource rent (between the State, industry and fishers);

Potential resource rents can be very large, although there are few fisheries where such rents have been estimated. The case of the Pacific Forum Fisheries Agency is given in Box 2 below.

Box 2: Pacific Forum Fisheries Agency – Resource rent level secured

Annual value of tuna landings is around US\$2 billion. If the fisheries were well-managed, the resource rents would be between US\$600 million and US\$1.2 billion per annum (that is, between 3.5% and 7% of the GDP of the Pacific Islands Region, which is some US\$17 billion).

This estimate is determined using the following rule of thumb: In the absence of a bioeconomic model of the fishery, a first approximation of the level of resource rent from a fishery is 30-60% of turnover.

The fisheries are mostly exploited by foreign vessels who pay access fees to the Pacific Island Governments. Such fees represent a way of extracting some resource rent. Currently, they are around US\$60 million. The FFA is well aware that this represents a poor return, but attempts to increase the amount have foundered for various reasons (see Pacific case-study).

4. It is important to use fisheries wealth generation in ways that benefit the poor and to link with other macroeconomic programmes on governance, institutional development and poverty alleviation

As part of a strategy to improve fish resources contribution to growth and poverty alleviation, the wealth generated by improved fisheries management must be used in a way that benefits the poor.



Photo 5: Packing frozen fish fillets, Uganda (R Faidutti, 1975). Courtesy of FAO Media Archive.

There are at least five important considerations:

- government must have a **clear understanding** of the contribution that fish resources are capable of making, and establish objectives for fisheries management supported by appropriate success indicators;
- the two approaches to fisheries management (traditional vs. wealth-based) provide **different visions** of how fisheries can contribute to economic and social welfare – through economic activity, and through wealth generation and usage (respectively);
- the wealth-based approach offers **different routes for poverty alleviation** including investing wealth in public goods and infrastructure; re-investment in the economy; and allocation of fisheries use rights specifically to the poor;
- the successful usage of these routes is **complicated by other implementation issues** including rent capture of valuable fisheries (issues of social justice and equity) and the disappearance of resource rents into government Treasury (requiring a clear linkage between fisheries and other government programmes such as poverty alleviation);

- **the transition from the conventional to the wealth-based approach** to fisheries management and development can itself be a problem; fish stocks in overexploited fisheries (low rent productivity) will need to be re-built and fishers will lose (and resist) in the process.

5. The development and adoption of a new wealth-based approach will require assistance and especially capacity-building in areas such as fisheries planning and management

To move from the 'conventional' model of fisheries exploitation toward a new wealth-based alternative involves two broad steps:

Step 1: Improve the management of the fishery in order to generate sustainable wealth from fish resources;

Step 2: Ensure an equitable distribution and use of this wealth in order to generate growth in the economy at large, and to make investments (e.g. primary education, health, infrastructure) that will have a positive impact on the poor;

There are at least seven issues that need to be considered for this new approach:

- **Capacity-building:** this is a major requirement and will include (i) research (e.g. predictive bioeconomic modeling approaches rather than a continued emphasis on backward-looking biological stock assessment); (ii) administration (e.g. to upgrade staff skills in fisheries administration within the appropriate government ministry); (iii) industry (e.g. to improve organization structure and function with reference to new co-management frameworks);
- **Supporting the process:** experience from successful countries (e.g. Australia, Iceland, New Zealand) shows that the move towards wealth-based models is a lengthy process (decades in duration) and support to the fishery management process itself will be needed;
- **Exploring new management instruments:** the range of management tools available to managers remains very small, and there is a need to consider the development of other mechanisms such as use rights and green taxes;
- **Developing and implementing fishery management plans:** assistance is likely to be required over a number of years as the

process develops (e.g. a country could start with one or two plans and gradually extend the process to other FMUs as experience is gained; assistance will be required in both technology transfer and training);

- **Targeting micro-level assistance:** to help countries develop and implement plans around the wealth generation concept assistance will be required at local level, to complement the recent high level international initiatives aimed at improving fisheries governance (e.g. FAO Code of Conduct for Sustainable Fisheries and the World Summit for Sustainable Development);
- **Micro-level studies of change impacts:** to quantify the impact of changing the approach to fisheries management and to develop effective risk abatement strategies;
- **Building awareness and political support:** a new approach to wealth generation and use in fisheries will require high level political support. This must be underpinned by generating awareness, throughout society, of the potential wealth of fish resources and the different options for its use.

Notes:

This key sheet was prepared by Dr(s) S. Cunningham and A.E. Neiland, IDDRA Ltd, Portsmouth Technopole, Kingston Crescent, Portsmouth, Hants, UK PO2 8FA; Tel: +44 (0)2392 658232; Fax: +44 (0)2392 658201; e-mail: Cunningham@iddra.org, Neiland@iddra.org

(1) Cunningham, S. and Neiland, A.E. (2005) Investigating the Linkages between Fisheries, Poverty and Growth: Final Report. DFID/PASS Contract AG0213; (www.onefish.org)

(2) Cunningham, S. and Bostock, T. (2005) Successful Fisheries Management: Issues, Case Studies and Perspectives. Delft: Eburon

(3) Pro-poor growth is the average growth rate of the incomes of poor people (DFID, 2004, What is Pro-Poor Growth and Why Do We Need to Know? Pro-Poor Growth Briefing Note 1 (Feb); London: DFID);

(4) FAO data indicates that the large majority of the world's fisheries are either fully or over-fished.